IFWO

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/643,795A

DATE: 08/13/2004
TIME: 15:39:27

Input Set : A:\P5026R1 sequence listing.txt
Output Set: N:\CRF4\08132004\J643795A.raw

```
 7 <110> APPLICANT: FREDERIC J. DESAUVAGE
 8         GRETCHEN FRANTZ
 9         KENNETH J. HILLAN
10         PAUL POLAKIS
11         ANDREW POLSON
12         VICTORIA SMITH
13         SUSAN D. SPENCER
14         THOMAS D. WU
15         ZEMIN ZHANG
17 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE DIAGNOSIS AND
18         TREATMENT OF TUMOR
20 <130> FILE REFERENCE: P5026R1-US
22 <140> CURRENT APPLICATION NUMBER: US 10/643,795A
23 <141> CURRENT FILING DATE: 2003-08-19
25 <150> PRIOR APPLICATION NUMBER: US 60/404,809
26 <151> PRIOR FILING DATE: 2002-08-19
28 <150> PRIOR APPLICATION NUMBER: US 60/405,645
29 <151> PRIOR FILING DATE: 2002-08-21
31 <150> PRIOR APPLICATION NUMBER: US 60/413,192
32 <151> PRIOR FILING DATE: 2002-09-23
34 <150> PRIOR APPLICATION NUMBER: US 60/419,008
35 <151> PRIOR FILING DATE: 2002-10-15
37 <150> PRIOR APPLICATION NUMBER: US 60/426,847
38 <151> PRIOR FILING DATE: 2002-11-15
40 <150> PRIOR APPLICATION NUMBER: US 60/484,959
41 <151> PRIOR FILING DATE: 2003-07-02
43 <160> NUMBER OF SEQ ID NOS: 158
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46 <211> LENGTH: 1870
47 <212> TYPE: DNA
48 <213> ORGANISM: Homo sapien
50 <400> SEQUENCE: 1
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53 atcatgccca ccgtggatga cattctggag caggttgggg agtctggctg 100
55 gttccagaag caagccttcc tcatcttatg cctgctgtcg gctgcctttg 150
57 cgcccatctg tgtgggcatc gtcttcctgg gtttcacacc tgaccaccac 200
59 tgccagagtc ctggggtggc tgagctgagc cagcgctgtg gctggagccc 250
61 tgcggaggag ctgaactata cagtgccagg cctggggccc gcgggcgagg 300
63 ccttccttgg ccagtgcagg cgctatgaag tggactggaa ccagagcgcc 350
65 ctcagctgtg tagaccccct ggctagcctg gccaccaaca ggagccacct 400
67 gccgctgggt ccctgccagg atggctgggt gtatgacacg cccggctctt 450
69 ccatcgtcac tgagttcaac ctggtgtgtg ctgactcctg gaagctggac 500
71 ctctttcagt cctgtttgaa tgcgggcttc ttgtttggct ctctcggtgt 550
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ENTERED

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 73  tggctacttt gcagacaggt ttggccgtaa gctgtgtctc ctgggaactg 600
 75  tgctggtcaa cgcggtgtcg ggcgtgctca tggccttctc gcccaactac 650
 77  atgtccatgc tgctcttccg cctgctgcag ggcctggtca gcaagggcaa 700
 79  ctggatggct ggctacaccc taatcacaga atttgttggc tcgggctcca 750
 81  gaagaacggt ggcgatcatg taccagatgg ccttcacggt ggggctggtg 800
 83  gcgcttaccg ggctggccta cgccctgcct cactggcgct ggctgcagct 850
 85  ggcagtctcc ctgcccacct tcctcttcct gctctactac tggtgtgtgc 900
 87  cggagtcccc tcggtggctg ttatcacaaa aaagaaacac tgaagcaata 950
 89  aagataatgg accacatcgc tcaaaagaat gggaagttgc ctcctgctga 1000
 91  tttaaagatg ctttccctcg aagaggatgt caccgaaaag ctgagccctt 1050
 93  catttgcaga cctgttccgc acgccgcgcc tgaggaagcg caccttcatc 1100
 95  ctgatgtacc tgtggttcac ggactctgtg ctctatcagg ggctcatcct 1150
 97  gcacatgggc gccaccagcg ggaacctcta cctggatttc ctttactccg 1200
 99  ctctggtcga aatcccgggg gccttcatag ccctcatcac cattgaccgc 1250
101  gtgggccgca tctaccccat ggccatgtca aatttgttgg cggggcagc 1300
103  ctgcctcgtc atgattttta tctcacctga cctgcactgg ttaaacatca 1350
105  taatcatgtg tgttggccga atgggaatca ccattgcaat acaaatgatc 1400
107  tgcctggtga atgctgagct gtaccccaca ttcgtcagga acctcggagt 1450
109  gatggtgtgt cctccctgt gtgacatagg tgggataatc accccccttca 1500
111  tagtcttcag gctgagggag gtctggcaag ccttgcccct cattttgttt 1550
113  gcggtgttgg gcctgcttgc cgcggggagtg acgctacttc ttccagagac 1600
115  caaggggggtc gctttgccag agaccatgaa ggacgccgag aaccttggga 1650
117  gaaaagcaaa gcccaaagaa aacacgattt accttaaggt ccaaacctca 1700
119  gaaccctcgg gcacctgaga gagatgtttt gcggcgatgt cgtgttggag 1750
121  ggatgaagat ggagttatcc tctgcagaaa ttcctagacg ccttcacttc 1800
123  tctgtattct tcctcatact tgcctacccc caaattaata tcagtcctaa 1850
125  agaaaaaaaa aaaaaaaaaa 1870
127 <210> SEQ ID NO: 2
128 <211> LENGTH: 731
129 <212> TYPE: DNA
130 <213> ORGANISM: Homo sapien
132 <220> FEATURE:
133 <221> NAME/KEY: Unsure
134 <222> LOCATION: 570, 575, 607, 611, 642, 672, 678
135 <223> OTHER INFORMATION: Unknown base
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140  aagtgttaga ctccatttct aaataccaga cttcaaaaga taaggttcaa 100
142  aagtgttata agaagatatt cctttttttg tcctagagaa cttattttcc 150
144  tgtgaaaatg cctaccacaa agaagacatt gatgttctta tcaagctttt 200
146  tcaccagcct tgggtccttc attgtaattt tgctctattc ttgggacaca 250
148  agcatggatc accagtacaa ttgctgttag agactctgct tcaaatggga 300
150  gcattttcat cacttacgga cttttttcgtg gggagagtag tgaagaattg 350
152  agtcacggac ttgcagaacc aaagaaaaag tttgcagttt tagagatact 400
154  gaataattct tcccaaaaaa ctctgcattc ggtgactatc ctgttcctgg 450
156  tcctgagttt gatcacgtcg ctgctgagct ctgggtttac cttctacaaa 500
158  cagcatcagc aaccccttacc agacattcct ggggcccgac gggggtgtac 550
W--> 160  acctgggaac gggcttcggn gcatncttcg tttttggtga ccatgatact 600
162  ggtttgnggg naacacgcag gtcccaccca actcttccga anaagttgtt 650
```

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164  tccaaaatgc tttacccccg gnaaccancc agtaaaggaa cgaccccaca 700
166  ggtaccggat actcgtgctg gctcatactg g 731
168  <210> SEQ ID NO: 3
169  <211> LENGTH: 2974
170  <212> TYPE: DNA
171  <213> ORGANISM: Homo sapien
173  <400> SEQUENCE: 3
174  gatcagtgtg tgagggaact gccatcatga ggtctgacaa gtcagctttg 50
176  gtatttctgc tcctgcagct cttctgtgtt ggctgtggat tctgtgggaa 100
178  agtcctggtg tggccctgtg acatgagcca ttggcttaat gtcaaggtca 150
180  ttctagaaga gctcatagtg agaggccatg aggtaacagt attgactcac 200
182  tcaaagcctt cgttaattga ctacaggaag ccttctgcat tgaaatttga 250
184  ggtggtccat atgccacagg acagaacaga agaaatgaa atatttgttg 300
186  acctagctct gaatgtcttg ccaggcttat caacctggca atcagttata 350
188  aaattaaatg atttttttgt tgaaataaga ggaactttaa aaatgatgtg 400
190  tgagagcttt atctacaatc agacgcttat gaagaagcta caggaaacca 450
192  actacgatgt aatgcttata gaccctgtga ttccctgtgg agacctgatg 500
194  gctgagttgc ttgcagtccc ttttgtgctc acacttagaa tttctgtagg 550
196  aggcaatatg gagcgaagct gtgggaaact tccagctcca ctttcctatg 600
198  tacctgtgcc tatgacagga ctaacagaca gaatgacctt tctggaaaga 650
200  gtaaaaaatt caatgctttc agttttgttc cacttctgga ttcaggatta 700
202  cgactatcat ttttgggaag agttttatag taaggcatta ggaaggccca 750
204  ctacattatg tgagactgtg ggaaaagctg agatatggct aatacgaaca 800
206  tattgggatt ttgaatttcc tcaaccatac caacctaact ttgagtttgt 850
208  tggaggattg cactgtaaac ctgccaaagc tttgcctaag gaaatggaaa 900
210  attttgtcca gagttcaggg gaagatggta ttgtggtgtt ttctctgggg 950
212  tcactgtttc aaaatgttac agaagaaaag gctaatatca ttgcttcagc 1000
214  ccttgcccag atcccacaga aggtgttatg gaggtacaaa ggaaaaaaac 1050
216  catccacatt aggagccaat actcggctgt atgattggat accccagaat 1100
218  gatcttcttg gtcatcccaa aaccaaagct tttatcactc atggtggaat 1150
220  gaatgggatc tatgaagcta tttaccatgg ggtccctatg gtgggagttc 1200
222  ccatatttgg tgatcagctt gataacatag ctcacatgaa ggccaaagga 1250
224  gcagctgtag aaataaactt caaaactatg acaagcgaag atttactgag 1300
226  ggctttgaga acagtcatta ccgattcctc ttataaagag aatgctatga 1350
228  gattatcaag aattcaccat gatcaacctg taaagcccct agatcgagca 1400
230  gtcttctgga tcgagtttgt catgcgccac aaaggagcca agcacctgcg 1450
232  atcagctgcc catgacctca cctggttcca gcactactct atagatgtga 1500
234  ttgggttcct gctgacctgt gtggcaactg ctatattctt gttcacaaaa 1550
236  tgtttttttat tttcctgtca aaaatttaat aaaactagaa agatagaaaa 1600
238  gagggaatag atctttccaa attcaagaaa gacctgatgg ggtaatcctg 1650
240  ttaattccag ccacatagaa tttggtgaaa accttgctat tttcatatta 1700
242  tctattctgt tatttttatct tagctatata gcctagaatt ccatgatcat 1750
244  gaggttgtga gtatatctca ttctttcgtt gtattttcct aggtgtcttt 1800
246  actctcttct ctcactttgt gacacaagga catgaataca tctaaatttt 1850
248  cctatttctg atatgactgt tttgatgatg tcattacttc tataacctta 1900
250  agtgataggg tgacatgcaa tatgattatt cctggtgtgc gcccaaacac 1950
252  atggatataa agaggtaaaa aacttaaaat tcacaaaatt cagtaaacca 2000
254  cacaaatcag gtaagtgttc tatgagatta gctggctatg agaaacataa 2050
256  tgatgtttct ttttcaattt aaataagcct ttctacatag ccagcatcag 2100
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258  tgatctcaga aaataaattg ctaataatga tgacatggca ttatgcttag 2150
260  aaaagtttgc tgtatttcca tagacctcat ctagatgtca tggcctacat 2200
262  ttctgccatc actcaaccaa tacttttttc tgttttcttg atgataaaaa 2250
264  gacctttctc atgattgcca tcaaataaca aaagaaacta tttttttttct 2300
266  cacatagaga acatgtcagt aagatattca aggtgaacag atattttttgg 2350
268  gattagtaac tatttgaaat atgtggtgat aattactgag tttataaaat 2400
270  ttatttgata gtacacttaa agaagattta tatgtttatt ctttaaaaat 2450
272  gatgaatact cataattctt atctctataa tcaaaagtat aatttactgt 2500
274  agaaaaataa agagatgctt gttctgaaag taagatcagt gaactgcttt 2550
276  tcagtctcaa tctttgagaa ttgtaaattc atcaaataat tgcttacata 2600
278  gtaaaaattt aaggtattag aaaacctgca taacaaatag tattatatat 2650
280  taaatatttt gatatgtaaa gctctacaca aagctaaata tagtgtaata 2700
282  atgtttacac tagtaagcaa atatgttaat cttctcattt ttttactgtc 2750
284  atataatctt agtgatatgc ctattaatag ttttaaataa ataaattggc 2800
286  ttatctggct ttttgaaaat tttgaaattc ttacagatgt tgattaggta 2850
288  tatctacaaa ttaatttcaa ttttaaaatg atgatataaa aataaatata 2900
290  agtatttttc ttgtgtatgt atacaataaa tataaataaa attgtttact 2950
292  gttttgaaag tttcttaagt ttta 2974
294  <210> SEQ ID NO: 4
295  <211> LENGTH: 2459
296  <212> TYPE: DNA
297  <213> ORGANISM: Homo sapien
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304  cggacaaggc cacctcgccg ctctcgctgg atgctggcct cgggcaggcc 150
306  ccctggagcg acctgcttct ttgggcactg ttgctgaaca gggcacagat 200
308  ggccatgtac ttctgggaga tgggttccaa tgcagtttcc tcagctcttg 250
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316  tcctcctccg tcgctgcccg ctctgggggg gatgccactt gcctccagct 450
318  ggccatgcaa gctgacgccc gtgccttctt tgcccaggat ggggtacagt 500
320  ctctgctgac acagaagtgg tggggagata tggccagcac tacacccatc 550
322  tgggccctgg ttctcgcctt cttttgccct ccactcatct acacccgcct 600
324  catcaccttc aggaaatcag aagaggagcc cacacgggag gagctagagt 650
326  ttgacatgga tagtgtcatt aatggggaag ggcctgtcgg gacggcggac 700
328  ccagccgaga agacgccgct gggggtcccg cgccagtcgg gccgtccggg 750
330  ttgctgcggg ggccgctgcg ggggcgccg gtgcctacgc cgctggttcc 800
332  acttctgggg cgcgccggtg accatcttca tgggcaacgt ggtcagctac 850
334  ctgctgttcc tgctgctttt ctcgcgggtg ctgctcgtgg atttccagcc 900
336  ggcgccgccc ggctccctgg agctgctgct ctatttctgg gctttcacgc 950
338  tgctgtgcga ggaactgcgc cagggcctga gcggaggcgg gggcagcctc 1000
340  gccagcgggg gccccgggcc tggccatgcc tcactgagcc agcgcctgcg 1050
342  cctctacctc gccgacagct ggaaccagtg cgacctagtg gctctcacct 1100
344  gcttcctcct gggcgtgggc tgccggctga ccccgggttt gtaccacctg 1150
346  ggccgcactg tcctctgcat cgacttcatg gttttcacgg tgcggctgct 1200
348  tcacatcttc acggtcaaca aacagctggg gcccaagatc gtcatcgtga 1250
350  gcaagatgat gaaggacgtg ttcttcttcc tcttcttcct cggcgtgtgg 1300
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352  ctggtagcct atggcgtggc cacggagggg ctcctgaggc cacgggacag 1350
354  tgacttccca agtatcctgc gccgcgtctt ctaccgtccc tacctgcaga 1400
356  tcttcgggca gattcccag gaggacatgg acgtggccct catggagcac 1450
358  agcaactgct cgtcggagcc cggcttctgg gcacaccctc ctggggccca 1500
360  ggcgggcacc tgcgtctccc agtatgccaa ctggctggtg gtgctgctcc 1550
362  tcgtcatctt cctgctcgtg gccaacatcc tgctggtcaa cttgctcatt 1600
364  gccatgttca gttacacatt cggcaaagta cagggcaaca gcgatctcta 1650
366  ctggaaggcg caggttaccg cctcatccgg gaattccact ctcggcccgc 1700
368  gctggccccg ccctttatcg tcatctccca cttgcgcctc ctgctcaggc 1750
370  aattgtgcag gcgaccccgg agccccagc cgtcctcccc ggccctcgag 1800
372  catttccggg tttacctttc taaggaagcc gagcggaagt gctaacgtgg 1850
374  gaatcggtgc ataaggagaa ctttctgctg gcacgcgcta gggacaagcg 1900
376  ggagagcgac tccgagcgtc tgaagcgcac gtcccagaag gtggacttgg 1950
378  cactgaaaca gctgggacac atccgcgagt acgaacagcg cctgaaagtg 2000
380  ctggagcggg aggtccagca gtgtagccgc gtcctggggt gggtggccga 2050
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384  acctgcctgg gtccaaagac tgagccctgc tggcggactt caaggagaag 2150
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388  cccgcacctg gtggccttgt ccttgaggtg agccccatgt ccatctgggc 2250
390  cactgtcagg accacctttg ggagtgtcat ccttacaaac cacagcatgc 2300
392  ccggctcctc ccagaaccag tcccagcctg ggaggatcaa ggcctggatc 2350
394  ccgggccgtt atccatctgg aggctgcagg gtccttgggg taacagggac 2400
396  cacagacccc tcaccactca cagattcctc acactgggga aataaagcca 2450
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403  <213> ORGANISM: Homo sapien
405  <220> FEATURE:
406  <221> NAME/KEY: Unsure
407  <222> LOCATION: 2
408  <223> OTHER INFORMATION: Unknown base
410  <400> SEQUENCE: 5
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     413  gctcgccggc tagaaaaact ctgtcggtac caaccccaga gcgttgagag 100
     415  cagcccacct ccacgcttcc ttaacggaga ggtgcaggac tcagacttca 150
     417  ccagcccact cggtcccagc cttgtacgca aagagacgcc aaggacgcgc 200
     419  tctcccgcgt ccaggcagcc ccagcttgct ggcttgcctg cccgcctgcg 250
     421  tgcagcactc ggccggcgtg cagcatgacc ctgtggaacg gcgtactgcc 300
     423  tttttacccc cagccccggc atgccgcagg cttcagcgtt ccactgctca 350
     425  tcgttattct agtgttttg gctctagcag caagcttcct gctcatcttg 400
     427  ccggggatcc gtggccactc gcgctggttt tggttggtga gagttcttct 450
     429  cagtctgttc ataggcgcag aaattgtggc tgtgcacttc agtgcagaat 500
     431  ggttcgtggg tacagtgaac accaacacat cctacaaagc cttcagcgca 550
     433  gcgcgcgtta cagcccgtgt cggtctgctc gtgggcctgg agggcattaa 600
     435  tattacactc acagggaccc cagtgcatca gctgaacgag accattgact 650
     437  acaacgagca gttcacctgg cgtctgaaag agaattacgc cgcggagtac 700
     439  gcgaacgcac tggagaaggg gctgccggac ccagtgctct acctggcgga 750
     441  gaagttcaca ccgagtagcc cttgcggcct gtaccaccag taccacctgg 800
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'Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; N Pos. 570,575,607,611,642,672,678
Seq#:5; N Pos. 2
Seq#:9; N Pos. 898,1187,1198,1241,1262,1266,1277,1281
Seq#:11; N Pos. 11,30,39,45
Seq#:13; N Pos. 3505,3583
Seq#:46; N Pos. 434,435,450
Seq#:50; N Pos. 2039,2040,2041,2042
Seq#:65; N Pos. 1391,1399,1418,1421,1431,1446,1449,1456,1463,1469
Seq#:68; N Pos. 404,405,406,407,408,409,410,411,412,413,414,415,416,417,418
Seq#:68; N Pos. 419,420,421,422,423,424,425,426,427,428,429,430,431,432,433
Seq#:68; N Pos. 434,435,436,437,438,439,440,441,442,443,444,445,446,447,448
Seq#:68; N Pos. 449,450,451,452,453,454,455,456,457,458,459,460,461,462,463
Seq#:68; N Pos. 464,465,466,467,468,469,470,471,472,473,474,475,502,510,517
Seq#:68; N Pos. 531,546,552,559,569,575,583,590,591,702,703,704,705,706,707
Seq#:68; N Pos. 708,709,710,711,712,713,714,715,716,717,718,719,720,721,722
Seq#:68; N Pos. 723,724,725,726,727,728,729,730,731,732,733,734,735,736,737
Seq#:68; N Pos. 738,739,740,741,742,743,744,745,746,747,748,749,750,751,785
Seq#:68; N Pos. 786,791,814,826,846,886,897,932,939
Seq#:75; N Pos. 3356,3743,3962,3966,3968,3976,3988
Seq#:89; Xaa Pos. 233,328,333

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'L:160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:550
M:341 Repeated in SeqNo=2
L:411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:772 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:850
M:341 Repeated in SeqNo=9
L:947 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:1282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:3500
M:341 Repeated in SeqNo=13
L:4699 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:400
L:5198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:2000
L:6497 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:1350
M:341 Repeated in SeqNo=65
L:6762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:400
M:341 Repeated in SeqNo=68
L:7869 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:3350
M:341 Repeated in SeqNo=75
L:9685 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89 after pos.:225
M:341 Repeated in SeqNo=89